

## **Amendment to the Claims:**

The following claim listing replaces all prior claim listings.

Listing of claims:

1. (Currently Amended) A method of managing maintenance activities for at least one item of equipment, the method comprising:
  - determining a configuration maintenance requirements for maintaining a target configuration of an item of equipment;
  - including establishing the target configuration of the item of equipment based on a design objective of the item of equipment, wherein the design objective includes safety, reliability, and performance, or a combination thereof;
  - evaluating an actual configuration of the item of equipment;
  - determining if the actual configuration complies with the target configuration;
  - determining a predictive maintenance requirements for the item of equipment based on a longevity estimate, a probability of failure, a financial analysis, or a combination thereof; and
  - planning for the availability of at least one of resources and a component for performing maintenance consistent with the configuration maintenance requirements and the predictive maintenance requirements;
  - including planning an upgrade requirement for upgrading the actual configuration to the target configuration if the actual configuration is noncompliant; and
  - coordinating the upgrade requirement and the predictive maintenance requirement into a combined maintenance schedule for both the upgrade requirement and the predictive maintenance requirement.
2. (Previously Presented) The method according to claim 1 further comprising establishing a universal representation of components to facilitate acquisition of components from multiple sources, interchangeability of components, tracking of component utilization.
3. (Cancelled).

4. (Cancelled).
5. (Currently Amended) The method according to claim 1 wherein determining the predictive maintenance requirements comprises:  
tracking performance data on ~~at least one of a particular~~the component ~~and the item of equipment~~; and  
~~predicting at least one required maintenance activity~~ determining the predictive maintenance requirement based upon the performance data with respect to a defined performance standard.
6. (Currently Amended) The method according to claim 5 wherein the planning comprises: scheduling performance of the ~~required maintenance activity~~predictive maintenance requirement at a defined respective time ~~based upon the predicting~~.
7. (Currently Amended) The method according to claim 1 wherein the planning comprises planning for the acquisition of at least one of the resources and the component consistent with the configuration maintenance requirements and the predictive maintenance requirements.
8. (Currently Amended) The method according to claim 1 wherein the planning comprises planning for the delivery of ~~at least one of the resources~~ and the component for a time interval at a common geographic location.
9. (Currently Amended) The method according to claim 1 wherein determining the predictive maintenance requirement comprises estimating a longevity of ~~a~~the component based on a historical longevity of ~~at least one of the component and an analogous component~~.
10. (Currently Amended) The method according to claim 1 wherein determining the predictive maintenance requirement comprises estimating a probability of failure of ~~a~~the component based on a historical probability of failure of ~~at least one of the component and an analogous component~~.

11. (Currently Amended) The method according to claim 1 wherein determining the predictive maintenance requirement comprises estimating a financial impact of a the component based on a historical financial impact of ~~at least one of the component and an analogous component.~~

12. (Currently Amended) The method according to claim 1 wherein ~~the~~ planning ~~step~~ includes obtaining the component for the target configuration and scheduling human resources consistent with availability of the component.

13. (Currently Amended) The method according to claim 1 further comprising updating the target configuration based on an engineering change.

14. (Original) The method according to claim 1 further comprising updating the target configuration to facilitate compliance with a regulatory requirement.

15. (Currently Amended) The method according to claim 1 wherein ~~the~~ planning ~~step~~ includes scheduling and bringing together at least two of the following resources at a specific time and place: a requisite component, technical instructions, supporting equipment, acceptance criteria and procedures, tools, and repair personnel.

16. (Previously Presented) The method according to claim 1 further comprising establishing a universal nomenclature definition applicable to a component, an item of equipment, a system, an assembly of components, or a combination thereof to support the exchange of data associated with the universal nomenclature definition.

17. (Original) The method according to claim 1 further comprising querying a database containing components associated with corresponding universal nomenclature descriptors.

18. (Currently Amended) The method according to claim 1 further comprising ~~the step of~~ estimating a remaining life span of a the component by determining a usage time span between an installation date of the component and a subsequent date, and deducting the usage time span from the longevity for the ~~corresponding~~ component.

19. (Currently Amended) A system of managing maintenance activities for at least one item of equipment, the system comprising:

a configuration monitor for determining a configuration maintenance requirements for maintaining a target configuration of an item of equipment;

wherein the configuration monitor establishes the target configuration of the item of equipment and determines whether an actual configuration complies with the target configuration;

the target configuration being based on at least one of safety, reliability, and performance;

a predictive maintenance controller for determining a predictive maintenance requirements for the item of equipment based on a longevity estimate, a probability of failure, a financial analysis, or a combination thereof; ~~and~~

a resource planner for planning for the availability of at least one of resources and a component for performing maintenance consistent with the configuration maintenance requirements and the predictive maintenance requirements;

wherein the resource planner is arranged to plan an upgrade requirement for upgrading the actual configuration to the target configuration if the actual configuration is noncompliant; and

wherein the resource planner coordinates the upgrade requirement and the predictive maintenance requirement into a combined maintenance schedule for both the upgrade requirement and the predictive maintenance requirement

20. (Previously Presented) The system according to claim 19 further comprising: a universal nomenclature manager for establishing a universal representation of components to facilitate acquisition of components from multiple sources, interchangeability of components, tracking of component utilization, or a combination thereof.

21. (Cancelled).

22. (Cancelled).

23. (Currently Amended) The system according to claim 19 wherein the predictive maintenance controller tracks performance data on ~~at least one of a particular~~the component and ~~the item of equipment and predicts at least one required maintenance activity~~determines the predictive maintenance requirement based upon the performance data with respect to a defined performance standard.

24. (Original) The system according to claim 23 wherein the resource planner schedules performance of the ~~required maintenance activity~~predictive maintenance requirement at a defined time to maximize availability of the item of equipment.

25. (Currently Amended) The system according to claim 19 wherein the resource planner plans for the acquisition of at least one of the resources and the component consistent with the configuration maintenance requirements and the predictive maintenance requirements.

26. (Currently Amended) The system according to claim 19 wherein the resource planner ~~comprises planning~~plans for the delivery of ~~at least one of the~~ resources and the component for a time interval at a common geographic location.

27. (Currently Amended) The system according to claim 19 wherein the longevity estimate of ~~a~~the component is based on a historical longevity of ~~at least one of the component and an analogous component~~.

28. (Currently Amended) The system according to claim 19 wherein the probability of failure of ~~a~~the component is based on a historical probability of failure of ~~at least one of the component and an analogous component~~.

29. (Currently Amended) The system according to claim 19 wherein the financial impact of ~~a~~the component is based on a historical financial impact of ~~at least one of the component and an analogous component~~.

30. (Original) The system according to claim 19 further comprising: a purchasing system for obtaining the component for the target configuration; and a

personnel management system for scheduling human resources consistent with availability of the component.

31. (Original) The system according to claim 19 wherein the target configuration complies with an engineering standard.

32. (Currently Amended) The system according to claim 4-19 wherein the target configuration complies with a regulatory requirement.

33. (Original) The system according to claim 19 further comprising a resource planner for scheduling and bringing together at least two of the following resources at a specific time and place: a requisite component, technical instructions, supporting equipment, acceptance criteria and procedures, tools, and repair personnel.

34. (Original) The system according to claim 19 further comprising a universal nomenclature manager for establishing a universal nomenclature definition applicable to at least one of a component, an item of equipment, a system, and an assembly of components to support the exchange of data associated with the universal nomenclature definition.

35. (Original) The system according to claim 19 further comprising a universal nomenclature manager for querying a database containing components associated with corresponding universal nomenclature descriptors.

36. (New) The method according to claim 1, where determining the predictive maintenance requirement comprises estimating a longevity of the component based on a historical longevity of a different component analogous to the component.

37. (New) The method according to claim 1, where determining the predictive maintenance requirement comprises estimating a longevity of the component based on a historical longevity of both the component and a different component analogous to the component.

38. (New) The method according to claim 1, where determining the predictive maintenance requirement comprises estimating a probability of failure of the component

based on a historical probability of failure of a different component analogous to the component.

39. (New) The method according to claim 1, where determining the predictive maintenance requirement comprises estimating a probability of failure of the component based on a historical probability of failure of both the component and a different component analogous to the component.

40. (New) The method according to claim 1, where determining the predictive maintenance requirement comprises estimating a financial impact of the component based on a historical financial impact of a different component analogous to the component.

41. (New) The method according to claim 1, where determining the predictive maintenance requirement comprises estimating a financial impact of the component based on a historical financial impact of both the component and a different component analogous to the component.

42. (New) The system according to claim 19, where the longevity estimate of the component is based on a historical longevity of a different component analogous to the component.

43. (New) The system according to claim 19, where the longevity estimate of the component is based on a historical longevity of both the component and a different component analogous to the component.

44. (New) The system according to claim 19, where the probability of failure of the component is based on a historical probability of failure of a different component analogous to the component.

45. (New) The system according to claim 19, where the probability of failure of the component is based on a historical probability of failure of both the component and a different component analogous to the component.

46. (New) The system according to claim 19, where the financial impact of the component is based on a historical financial impact of a different component analogous to the component.

47. (New) The system according to claim 19, where the financial impact of the component is based on a historical financial impact of both the component and a different component analogous to the component.